

1 8. The method of claim 5, wherein a frequency of the oscillatory motion of the
2 oscillatory driver ranges from about 0.4 Hz to about 40 Hz.

1 9. The method of claim 1, wherein the oscillatory motion of the oscillatory driver is
2 induced by inducing oscillatory motion of the container.

1 10. The method of claim 1, wherein the oscillatory motion of the oscillatory driver is
2 induced by inducing oscillatory motion of the portion of the biopharmaceutical solution
3 that is frozen.

1 11. The method of claim 1, wherein the oscillatory motion of the oscillatory driver is
2 induced by inducing oscillatory motion of an unfrozen portion of the biopharmaceutical
3 solution.

1 12. A device for accelerated thawing of a biopharmaceutical solution comprising
2 a container configured to contain the biopharmaceutical solution, wherein at least
3 a portion of the biopharmaceutical solution is frozen;
4 a heating element, coupled to the container, that provides heat flux into the
5 container; and
6 an oscillatory driver capable of being coupled to the biopharmaceutical solution,
7 for inducing oscillatory motion of the biopharmaceutical solution to accelerate thawing,
8 compared to motionless thawing, of the portion of the biopharmaceutical solution that is
9 frozen.

1 13. The device of claim 12, wherein the container comprises a thermal jacket.

1 14. The device of claim 12, wherein the container comprises an agitator.

1 15. The device of claim 12, wherein the oscillatory driver is mechanically coupled to
2 the container.

